

## ABSTRACT OF THE DISCLOSURE

In a photoelectric converting device, a photoelectric current (electric signal) generated by light entering a photodiode PD causes the gate voltage of MOS transistors T1 and T2 to rise, and thus a current corresponding to this gate voltage 5 flows through the MOS transistor T2 into a capacitor C, shifting the voltage at the node "a" between the MOS transistor T2 and the capacitor C. Here, when the voltage  $\phi_{VPS}$  applied to the source of the MOS transistor T1 is adjusted in such a way that the MOS transistor T1 operates in a subthreshold region below its threshold level, the voltage at the node "a" varies on a natural-logarithm basis with 10 respect to the photoelectric current. By contrast, when the voltage  $\phi_{VPS}$  applied to the source of the MOS transistor T1 is kept approximately equal to a direct-current voltage VPD, the voltage at the node "a" varies on a linear basis with respect to the photoelectric current.

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